Coursework One Design

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# Introduction

* Provide a brief overview of the document and what I will cover and more especially how I will intend on providing a good app.
* explain how I will make use of android material design.

# Design Choices

* Explain how I will implement the base features which are required by the base specification.
* Mention how I arrived at certain decisions based off other apps on the market.
* Explain what will make my app special from other currently on the market.

# Bonus Features

## Bonus Feature One – Multiple Choice News Games

For my first bonus feature, I wanted to develop a less traditional method of getting informed. Therefore, I have decided upon the inclusion of a games tab within the app. The games tab will consist of a series of multiple-choice games such as, guess the article title from the image, guess the category of the article and guess the missing fact in a statement from the relevant article. Additionally, at the end of each question, an opportunity to view the original article will be presented to the user if they decide to find out more. This will provide an interactive and entertaining method of presenting specifically tailored news topics to the user in an informal manor. By the games being multiple choice with a simplistic user interface, it ensures the effort required to use the app is still low, meaning that users will find the games enjoyable opposed to a chore.

The inspiration for the feature originated from the lack of variety in modern news apps. Exploring several apps revealed that most provide a rather limited and boring user experience with little interaction. In order to implement such a feature, I will be making use of an external news retrieval library to allow me to pick out key facts, figures and related images to form a bank of questions for each article. I will also use other related articles and calculations performed on correct figures to generate incorrect answers for use in the multiple-choice options.

## Bonus Feature Two – Key Word Article Filtering

In the modern day and age, it is common for news providers to bombard users with certain popular topics. A recent example of this would be Brexit and the Coronavirus which can often make reading the news a repetitive task where the user doesn’t learn anything interesting. It is based off this common issue that I have decided to implement key work filtering in my planned app. Under the user profile tab, users will be able to enter keywords which will appear on screen as toggle buttons in a horizontally scrollable list. There will be 3 scrollable lists, boring, interesting and spotlight each with a different outcome on the types of articles displayed on the user’s main page:

* **Boring –** Greatly reduced or prevented from appearing on the user’s main page.
* **Interesting –** Prioritised and will make up the majority of the content on the main page.
* **Spotlight –** Articles will be placed near the top of the user’s main page.

The variety of options will help users to easily and accurately filter articles. Additionally, due to the use of toggle buttons, users can drastically adjust their news feeds if they wish to be informed of certain developments. An example use case might consist of the following three categorisations:

* **Boring –** A new election is occurring in the next month and the user isn’t interested in politics and would like to avoid all articles completely. Possible words include: “Trump”, “Democrats”, “Elections”, etc.
* **Interesting –** A new technology that interests the user is slowly being adopted by multiple different mobile phone brands. The user wishes to learn more and new developments in the industry. Words may include: “Phone”, “5G”, “Integration”, “”
* **Spotlight –** A new Mac Book Pro is being released by Apple, but the release date is not confirmed. The user is interested in all articles which contain information of potential release dates. Possible words may include: “Apple”, “Mac Book Pro”, “Release Date”, “Confirmed”, etc.

Articles which include multiple spotlighted words will be higher in the news feed helping the user to be informed of specific topics as soon as an update is available, as demonstrated above with the Mac Book example.

## Bonus Feature Three – Automatic Scheduled Downloading of Articles

One advantage of Native development is that apps can be run whilst the phone doesn’t have an active internet connection, i.e. is offline. I wanted to take advantage of this attribute of native development by implementing automatic downloading of tailored articles. The user would specify a download and removal time under the profile tab which would instruct the app to save local copies of new tailored articles and delete them at the specified removal time. The user will also be able to specify the quantity of articles that are downloaded and the maximum storage allowance.

An example use case of this feature would be a user who enjoys reading articles whilst commuting to work via the London underground where mobile data coverage is poor. The app could start downloading articles at 07:00 in the morning ready for the commute and remove the articles at 22:00 at night. This offers the potential of maintaining the interactive nature of the app despite that an active internet connection is not available, hence improving the scope of the app.

The inspiration for this feature arose from the lack of clear support for offline mode in several news apps available on the app store. Although the majority of apps offer some level of content whilst offline, most remove images, videos, audio clips, etc. Although it is clear that dynamic content like videos and images may have large file sizes, their temporary presence on the phone will not result in large storage overheads.

# Activity GUIs

* Only include screenshots of the two most important activities. – Possibly the ones which demonstrate room for advanced features or large aspects of the specification including material design.
* Explain reasoning behind design decisions and how it improves the application.
  + Colour pallet.
  + Placement of widgets.
  + consistent look and feel.
  + Must make use of lecture resources
  + Do further reading to add advanced GUI’s, i.e. features not discussed in lectures.

# XML Scripts

* Include XML code for the two most important activities.

# Summary

* Provide a brief summary of the main focuses of my app and how this is being delivered to the user through use of GUIs and bonus features.
* Possibly remove this section if running low on page space.

**Plan**

* How will a user enter their preferred news topics?
* How will users be alerted to new stories being posted that they are interested in?
* What information is important to be displayed?
* What information can be hidden, and how would you do this?
* How often will the app look for new articles?
* Need a minimum of two bonus features – Possibly include three to be safe.
  + Bonus features need to make the app more appealing, interesting and rewarding.
  + Look into what makes various current apps on the app store special.
* Need to include screenshots of GUIs and XML scripts code. – Use code formatter and reduce text size to fit.
* Need to include dummy data to populate GUI screenshots.
* Mention how I made use of Android material design throughout my app and how it contributes towards a good app / user experience.
* Only talk about things which are relevant and will get me marks. Do not bother with anything else as it’s a waste of time and effort.

**Ideas**

**Possible Bonus Features**

* Bookmarking of articles
* Use of location data to provide local news

**Possible GUI Layout**

* Possible Tabs:
  + Today – News relevant to today
  + Discover – user can search for new articles by searching filtering by certain criteria:
    - Topics
    - News Companies
    - Trending
  + My Profile – A section which illustrates graphically what the user likes.
  + For You – Articles based off user profile
* Explain bonus feature one and how it adds richness to the app.
* Mention where I got the inspiration from.
* Explain how I will implement it making use of external features and provide proof.
* Explain how the bonus feature makes my app different from others currently on the market.